COURSE SYLLABUS

AI Software Engineering Bootcamp

Live instruction: Learn AI-assisted software engineering through full-stack development, systems design, security, and a capstone application.

> Group classes (NYC) and onsite training are available for this course. For more information, email corporate@nobledesktop.com or visit: https://training-nyc.com/certificates/ai-software-engineering-bootcamp



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Course Outline

This package includes these courses

- AI Coding Bootcamp with Claude Code (60 Hours)
- AI Coding for Product and UX (60 Hours)
- AI Coding for Security (60 Hours)
- AI Coding for Systems and Architecture (60 Hours)
- AI Coding Capstone (60 Hours)

AI Coding Bootcamp with Claude Code

Build web applications with Claude Code, GitHub, Next.js, Supabase, and APIs. Practice code review, debugging, design, testing, security checks, and deployment.

AI Coding for Product and UX

Design, build, and test a complete website with AI direction.

- Brief AI with specific references so it stops defaulting to generic layouts
- Judge a design using visual hierarchy, typography, color, spacing, and layout
- Map a site with a sitemap, user flows, and a heading outline before prompting
- Hold a design together across pages with a reusable design system
- Get the phone layout, forms, interface states, interface copy, and motion right
- Verify your build with DevTools, accessibility checks, and a usability test

AI Coding for Security

- Take part in team development workflows that rely on version control and code review
- Set up pipelines for continuous integration and continuous deployment
- Keep watch over running applications with observability and debugging tools

- Use cybersecurity fundamentals and threat modeling methods in your work
- Handle authentication, authorization, and sensitive data in a secure way
- Find the risks particular to AI-powered applications and reduce them

AI Coding for Systems and Architecture

- Use core computer science concepts on development challenges taken from real projects
- Draw on current architecture patterns to design systems that scale
- Handle networks, concurrency, and environments that span several languages
- Put caching, queues, and background processing workflows in place
- Release applications with cloud infrastructure tools
- Improve performance and keep systems reliable

AI Coding Capstone

Plan and build a full-stack application with AI-powered features. Practice testing and deployment, document your work, and present the project.